



2040 NEBRASKA

Good Life. Great Journey.

STATEWIDE TRANSPORTATION PLAN

Performance Measures

March 5, 2021

This memo presents the final Performance Measures for the 2040 Nebraska Statewide Transportation Plan.

1 Introduction

The Nebraska Department of Transportation (NDOT) is developing a 2040 Statewide Transportation Plan (2040 STP) that will prepare and advance the transportation system for a future Nebraska. This report describes the performance measures NDOT will use to track performance and progress towards the goals and objectives developed for the 2040 STP. Tracking performance is important since it offers ways for NDOT to assess progress toward the plan's goals and objectives. The goals and objectives provide a big picture foundation to support plan development activities and establish direction that can help guide NDOT's decision-making through plan implementation.

2 Performance Measure Development Process

Identifying the correct performance measures required NDOT to look deeply into the data NDOT already tracks, aligning those existing NDOT performance measures to the goals of the 2040 STP, and using best practices research to fill any identified gaps. The following sections describe the performance measure development process in more detail.

2.1 Plan Goals

NDOT established goals for the 2040 STP after developing an understanding of the current Nebraska transportation system and following a thorough investigation of trends and issues that will define Nebraska's future. Goals are broad statements that describe future or desired results, and these goals were developed in collaboration with internal and external stakeholders. The 2040 STP is guided by the following goals:



Asset preservation: Keep Nebraska's multimodal transportation assets in a state of good repair.



Mobility choices for people & freight: Provide efficient, affordable, and equitable options across all modes for moving people and goods throughout Nebraska and beyond.



Secure & resilient transportation: Manage the risk and magnitude of disruptions to Nebraska's transportation systems.



Safety: Provide a transportation system in Nebraska that is safe for all users.



Support for economic & community vitality: Choose investments in Nebraska's transportation system that best support the vitality of Nebraska's economy and all of its communities.

2.2 Identifying Performance Measures

After setting goals and objectives for the 2040 STP, NDOT began the process of identifying which performance measures would best serve the NDOT in understanding the achievement of goals and objectives. For reference, performance measures provide evidence of the degree to which a performance result is occurring over time. A performance measure is quantifiable and related to goals and objectives. To identify performance measures for Nebraska's 2040 STP the project team reviewed existing materials to understand current priorities and available data, supplemented existing measures with best practices, and then refined the final performance measure list for inclusion in the 2040 STP.

2.2.1 NDOT Material Review

Much like the process to identify plan goals and objectives, the project team first reviewed existing NDOT materials to understand existing data and tracked measures. Reviewed materials include (but were not limited to):

- Vision 2032 Long Range Transportation Plan
- NDOT 2018 and 2019 Annual Report
- Federal Highway Administration (FHWA) Performance Measures including safety measures and targets reported in the Highway Safety Improvement Program (PM1), and infrastructure condition (PM2) and system performance (PM3) measures and targets reported in the October 2020 Mid-Performance Report (PM2)
- Federal Transit Administration (FTA) Transit Asset Management Measures - via Tier II Group Plan, National Transit Database, and the individual agency Transit Asset Management Plans
- 2019 Transportation Asset Management Plan
- 2017 Nebraska State Freight Plan
- 2017-2021 Nebraska Strategic Highway Safety Plan
- 2019 Nebraska Airport Capital Improvement Plan

These plans and documents describe ongoing NDOT efforts and priorities. The review of these materials ensures consistency between the 2040 STP development and ongoing efforts. In addition, these plans and documents can serve as resources for future performance tracking for 2040 STP implementation.

2.2.2 Supplemental Research

The review of NDOT plans and documents identified many applicable and useful performance measures; however, existing NDOT measures did not fully cover the intention and direction of all the 2040 Statewide Transportation Plan goals and objectives. To compensate, the project team reviewed materials from Nebraska's Metropolitan Planning Organizations (MPOs), other states, and federal reports to review performance best practices and supplement existing measures where appropriate. Documents reviewed include long-range transportation plans from Arkansas, Colorado, Florida, Kansas, Maryland, Missouri, Ohio, Pennsylvania, and Virginia. Other documents from these states and more were also reviewed, including performance measure reports, TAMPs, and strategic plans.

The performance measures identified through this research were added to a list of existing NDOT measures and aligned by plan goal area. When completed, the universe of performance measures was presented to NDOT staff for discussion and refinement.

2.2.3 Refinement

A long list of potential performance measures was refined through a series of meetings with NDOT staff. Due to the ample data already tracked by the department, the project team decided to keep the performance measures broad and aligned to the existing work processes already in place at the Department. The more detailed plans and performance documents can continue to be a reference for the implementation of the 2040 goals and objectives.

However, the research of performance measures in other organizations highlighted opportunities to measure performance in different or innovative ways. These opportunities would require new data collection and processes that do not exist today but may present themselves in the near future. While preferring to leverage existing data, the project team wanted to capture these opportunities for consideration in the future.

3 2040 Statewide Transportation Plan Performance Measures

The results of the research and refinement led to the list of performance measures presented in this section. The measures listed are organized by the 2040 STP goal and represent the final performance measures that will be used to assess progress or achievement for each goal.

Alongside the final performance measures listed for each goal, existing NDOT plans and performance management efforts are also noted. These plans and performance management efforts represent additional performance-based efforts, conducted within the NDOT (e.g., data collection, measurement, and methodologies) that support or echo the final Plan's performance measures.

Lastly, each performance measure list also includes "opportunity measures" which represent the ideas and potential new performance measures identified through the team's research. These opportunity measures can be used by the NDOT team as the goals progress or as the agency alters performance data collection and measurement in the future.



Asset Preservation

Goal: Keep Nebraska's multimodal transportation assets in a state of good repair

Performance Measures:

- Percent of Interstate pavement in Good condition*
- Percent of Non-Interstate National Highway System (NHS) pavement in Good condition*
- Percent of NHS bridges by deck area classified as in Good condition*
- Percent of non-NHS state highway system bridges by deck area classified as in Good condition*
- Percent of transit revenue vehicles that have met or exceeded their ULB **
- Percent of state airports meeting minimum updated NASP (Nebraska Airport System Plan) standards***

Other NDOT plans that measure and track Asset Preservation: Transportation Asset Management Plan, Transit Asset Management Group Plan, NDOT Annual Report, Nebraska Airport Capital Improvement Plan

Opportunity Measures: Percent of facilities (bridges, routes) that accommodate X feet of flooding, Percent of State Highway System miles resurfaced

*Indicates a Federal Highway Administration (FHWA) Transportation Performance Management (TPM) measure

**Indicates a Federal Transit Administration (FTA) Transit Asset Management Performance Measure

***NASP update anticipated in 2022



Mobility Choices for People & Freight

Goal: Provide efficient, affordable, and equitable options across all modes for moving people and goods throughout Nebraska and beyond

Performance Measures:

- Percent of the person-miles traveled on the Interstate that are reliable*
- Percent of the person-miles traveled on the non-Interstate NHS that are reliable*
- Truck Travel Time Reliability (TTTR) Index
- Percentage of programmed local road and street projects that are let in the programmed year
- Total number of dollars (millions) committed to local public government authorities
- Private sector and local investment created by the Economic Opportunity Program and the County Bridge Match Program
- System miles that are actively managed / monitored by Intelligent Transportation System (ITS)
- Annual ridership for urban public transit operators
- Annual ridership for rural public transit operators

Other NDOT plans that measure and track Mobility Choices: Nebraska Airport Capital Improvement Plan

Opportunity Measures: Miles of connected highway, Percent of state system sidewalks that meet ADA compliance, Percent of state-owned roadway centerline miles with a bicycle level of comfort grade "D" or better, Cost per user of completed projects, Cost competitiveness of freight

*Indicates a Federal Highway Administration (FHWA) Transportation Performance Management (TPM) measure



Secure & Resilient Transportation

Goal: Manage the risk and magnitude of major disruptions to Nebraska's transportation systems

Performance Measures:

- Average minutes per closure on I80
- Annual number of crashes on I80
- Percent of NDOT ITS assets that can perform with electric power grid disruption
- Percent of NDOT assets monitored by CCTV
- Number of 511 interactions via the website, phone calls, app, and rest area kiosks
- Total miles of road closed due to flooding

Other NDOT plans that measure and track Secure and Resilient Transportation:

Transportation Asset Management Plan

Opportunity Measures: Percent of Missouri River bridges with low-risk scores, Time savings resulting from key route redundancy investments, Time required for responders (guard, law enforcement, emergency response technician) to arrive and initiate response protocol, Number of agencies with CCTV and NDOT Data Access



Safety

Goal: Provide a transportation system in Nebraska that is safe for all users

Performance Measures:

- Rate of fatalities per 100 million VMT*
- Rate of serious injuries per 100 million VMT*
- Number of non-motorized fatalities and serious injuries*
- Number of fatalities*
- Number of serious injuries*
- Work zone crashes per million dollars in construction costs

Other NDOT plans that measure and track Safety: Nebraska State Highway Safety Plan, Highway Safety Improvement Program

Opportunity Measures: Percent of Complete Streets-eligible projects that include Complete Streets features, Number of safety engagements performed, Number of Safety Champions recognized, Percent of operational cameras or other safety technology

*Indicates a Federal Highway Administration (FHWA) Transportation Performance Management (TPM) measure



Support for Economic and Community Vitality

Goal: Choose investments in Nebraska's transportation system that best support the vitality of Nebraska's economy and all of its communities

Performance Measures:

- Percent of construction projects in NEPA compliance
- Percent of environmental commitments for construction projects resolved in a seven-day window
- Post-Consumer Recycled Content "Overall Replacement Content" to combine with Recycled/Reused Materials from Maintenance Activities and Construction/Demolition Projects
- Total freight value moved
- Truck Count measured by truck AADT percentage
- Number of projects made possible by the Economic Opportunities Program and County Bridge Match Program
- Number of full-time jobs created by the Economic Opportunities Program
- Number of counties with transit service

Other NDOT plans that measure and track Economic and Community Vitality: NDOT Annual Report, Nebraska State Freight Plan

Opportunity Measures: Environmental sustainability index, Total freight value by mode and corridor, Percent of the population within a quarter-mile of a transit stop/station, Percent of the population within 30-minute travel time to an economic activity center, Year-to-year change in statewide average job accessibility
